

Minutes of X3T11 HIPPI SWG, and HNF - Technical Committee (TC)
December 3, 1996
Minneapolis, Minnesota

1. Opening remarks and introductions

The Chairman, Don Tolmie of Los Alamos National Laboratory, opened the Technical Committee portion of the HNF meeting and thanked Horst Truestedt and IBM for hosting this meeting. This group is constituted as both the HIPPI special working group (SWG) under X3T11, and the HIPPI Networking Forum (HNF) - Technical Committee (TC).

Don lead a round of introductions. The list of attendees is at the end of these minutes.

2. Review / modify the draft agenda

Draft agendas were distributed via e-mail before the meeting for both the HIPPI-6400 specific portion, and the HIPPI general portion. Hard copies were distributed at the meeting. No changes were made at the meeting. These minutes reflect the approved agenda. Don Tolmie agreed to take the meeting minutes. Note that the minutes for the HIPPI-6400 specific meeting are separate.

3. Review Minutes of Previous Meeting

The minutes of the X3T11 HIPPI SWG / HNF - TC meeting of October 8, 1996, in St. Petersburg were reviewed. Joe Parker of Optivision moved, and Francois Gaullier of HP seconded, to approve the minutes as written. Passed unanimously.

4. Review of old action items

The action items from the October, 1996, meeting were reviewed for the current status.

1. Michael McGowen of Essential Communications - Generate a HIPPI switch MIB. (In process, expected in February '97)
2. Jeff Young of Cray Research - Check on the status of the HIPPI end-point MIB, and if Mark Kelley is going to continue work on it. (Carryover)

3. John Renwick of NetStar - Check status of ARP over HIPPI RFC with Phil Cameron of Essential and see if we can get the document moving. (Overcome by events)
4. Don Tolmie of Los Alamos - Check with John Renwick of NetStar as to the status of RFC 1374. (Overcome by events)
5. Greg Chesson of SGI - Work with Bob Pearson of Essential, and John Renwick of NetStar, on ARP and IP over HIPPI-6400. (Done)
6. Michael McGowen of Essential Communications - Update HIPPI-AC to work with HIPPI-SC and its recent changes. (Carryover)
7. Tim Clay of Methode Electronics - Investigate a good test pattern for HIPPI-Serial optical components. (Dropped for lack of progress)
8. Don Tolmie of Los Alamos - Revise HIPPI-FP with the inclusion of a ULP-id for HIPPI-MP. (Carryover)
9. Everyone - Suggest changes to HIPPI-FP and bring in proposals for them. (Carryover)
10. Roger Ronald of Raytheon E-Systems - Talk to the E-Systems people working on their HIPPI-6400 switch about Von's MIB and E-Systems MIB plans, and report back to this group. (Done, E-Systems is planning for a MIB)
11. Everyone - Review the HIPPI-6400 MIB. (Carryover)
12. Don Tolmie of Los Alamos - Shepherd HIPPI-Serial Rev 2.7 through X3T11 and the final ANSI approval process. (In process)
13. Don Tolmie of Los Alamos - Shepherd HIPPI-SC Revised, Rev 3.2 through X3T11 and the final ANSI approval process. (In process)
14. Don Tolmie of Los Alamos - Shepherd HIPPI-ATM Rev 1.8 through X3T11 and the final ANSI approval process. (In process)
15. Don Tolmie of Los Alamos - Present the Project Proposal for HIPPI-FP revision to X3T11 for further processing. (Done)

5. HIPPI-Serial

HIPPI-Serial Rev 2.6 completed its first public review on September 17, 1996. The only comments (suggestions) came from the ANSI editor. Don Tolmie has incorporated most of the suggestions (all editorial, no substantive changes were made) into Rev 2.7. The document is in the last stages of approval at X3, BSR, and ANSI. The standards document, when it is approved, should be numbered ANSI X3.300-1996.

6. IETF related items

6.1 IP over HIPPI, RFC 1374

John Renwick of Ascend reported that the current version tightened up the specification, e.g., things that had been optional are now mandatory. He had asked for a new RFC, but that doesn't seem to have happened. John took an action item to check the status with IETF.

6.2 ARP over HIPPI

Fred Templin of NASA Ames made a proposal as part of HIPPI-6400 SC addressing this subject.

6.3 HIPPI end-point MIB

Mark Kelley of Cray Research was implementing a MIB, but was not done as of the February '96 meeting. Jeff Young has an action item to see if Mark Kelley was going to continue, and the status of the document. Nothing new was reported at this meeting.

6.4 HIPPI switch MIB

Bob Pearson reported that Essential Communications is in the process of producing a MIB, and it should be available for review at the February meeting.

6.5 HIPPI-6400 MIB

Von Welch did not attend this meeting, nothing new was reported.

7. HIPPI-AC (Auto Configuration)

There continues to be interest in pushing this topic, as an ANSI standard or as an HNF document, but nothing new was reported at this meeting.

8. HIPPI-SC (HIPPI-800 Switch Control)

Like HIPPI-Serial, HIPPI-SC Revised, Rev 3.1, completed its first public review on September 17, 1996. The only comments (suggestions) came from the ANSI editor. Don Tolmie has incorporated most of the suggestions (all editorial, no substantive changes were made) into Rev 3.2. The document is in the last stages of approval at X3, BSR, and ANSI. The new standards document should be numbered ANSI X3.222-1996.

9. HIPPI API (Application Programming Interface)

Francois Gaullier of HP reported that liaison has been initiated with X-Open. One HP engineer is working on an API, and Francois is looking for someone from SGI to work with him to produce a draft.

10. HIPPI-ATM (Mapping to Asynchronous Transfer Mode)

Like HIPPI-Serial and HIPPI-SC Revised, HIPPI-ATM Rev 1.7, completed its first public review on September 17, 1996. The only comments (suggestions) came from the ANSI editor. Don Tolmie has incorporated most of the suggestions (all editorial, no substantive changes were made) into Rev 1.8. The document is in the last stages of approval at X3, BSR, and ANSI. The standards document, when it is finally approved, should be numbered ANSI X3.299-1996.

11. HIPPI-MP (Multiple Path)

HIPPI-MP, which stands for "Multiple Path", is intended to provide higher speed transfers by striping, using current HIPPI interfaces and switches. Don Tolmie, the document editor, reported that he is holding off on updating the original draft so that it may be aligned with the verbiage and techniques used for HIPPI-6400-PH

Scheduled Transfers. Roger Ronald stated that he had text describing a HIPPI-800 / HIPPI-6400 adapter that may fulfill the need. Roger will make the document available for review.

12. HIPPI-FP (Framing Protocol)

12.1 Suggested changes for revisions

With work on HIPPI-MP proceeding, a ULP-id for -MP may be needed in -FP. At the 1996 April meeting, a vote to 'revise' HIPPI-FP passed, and a call for other changes was issued. No other changes have been proposed.

12.2 Plans for revision

The Project Proposal for a revision of HIPPI-FP was forwarded to X3T11 at the October meeting. X3T11 should vote on the Project Proposal at their December meeting (the following day).

13. HIPPI-PH Reaffirmation

Don Tolmie reported reaffirmation, without change, of ANSI X3.183-1991, (HIPPI-PH) should be finalized in December of this year. Roger Cummings, X3T11 Chairman, reported that it passed its X3 Letter Ballot 22 for, 0 opposed, 1 abstention, and 3 not voting.

14. HIPPI-6400

14.1 Interim Working Group report

Special working meetings on HIPPI-6400 were held November 6-7, in Phoenix, AZ, and December 2-3, in Minneapolis at the same location as this meeting. Work on HIPPI-6400-PH, HIPPI-6400-SC, and HIPPI-ST progresses. Scheduled Transfers have been broken out into a separate HIPPI-ST document. Work on copper and fiber media for -PH is underway. Selection of an optical connector is scheduled for the February meeting. See the separate HIPPI-6400 minutes for these meetings for further details.

14.2 Status of Patents

Hewlett-Packard previously supplied a letter defining HP's release of the 4b/5b coding for use in HIPPI-6400, and has been asked to complete the ANSI patent release form. Francois Gaullier reported that he is still working on the paperwork.

14.3 Processing status of SD-3 for HIPPI-6400-SC

The Project Proposal for HIPPI-6400-SC has passed OMC and X3 review. HIPPI-6400-SC has been assigned project number 1231-D.

14.4 Project Proposal for HIPPI-ST

With the Scheduled Transfers split out as a separate document, a Project Proposal for HIPPI-ST is required. Don Tolmie presented a draft which was reviewed, and revised at this meeting. Greg Chesson of SGI moved, and Joe Parker of Optivision seconded, that the Project Proposal as modified at this meeting, be forwarded to X3T11 for further processing. Motion passed, 11 for, 0 opposed.

15. Other items

No other items were introduced.

16. Future meeting schedule

16.1 January 7-9, 1997, Phoenix, AZ

The meeting will cover HIPPI-6400 issues, with emphasis on copper on Wednesday.

Tuesday, January 7 — 1 PM - 9 PM
Wednesday, January 8 — 8 AM - 9 PM
Thursday, January 9 — 8 AM - 5 PM

The location is on the Courtyard by Marriott at the Phoenix Airport. Chris Olson and Lockheed Martin are the host. (See the meeting announcement on the web page at <http://www.cic-5.lanl.gov/~det/> for further details.)

16.2 February 3-4, 1997, San Jose, CA

During the X3T11 February plenary week, the following HIPPI meetings are scheduled:

Monday, February 3-

9 AM - 9 PM — HIPPI-6400

Tuesday, February 4 -

8 AM - 9 AM — HNF Plenary

9 AM - 2 PM — HIPPI-TC General and -6400

2 PM - 5 PM — HIPPI-6400 Optical (with connector selection)

6 PM - 9 PM — HIPPI-6400 General

The location is the Red Lion Hotel, 2050 Gateway Place, San Jose, CA 95110. Bob Snively and Sun Microsystems are the host. (See the meeting announcement on the web page at <http://www.cic-5.lanl.gov/~det/> for further details.)

16.3 Future meeting dates and locations

The following 1997 X3T11 plenary week dates are shown below. Note the date changes for the January, May and December meetings, and the location change for the March meeting. Recent changes to this list are underlined to make them easier to find.

1997 -

<u>Jan 7-9</u>	Interim	Phoenix, AZ	Lockheed
Feb 3-4	Plenary	San Jose, CA	Sun
Mar 5-6	Interim	<u>San Jose, CA</u>	Berg
Apr 7-8	Plenary	Palm Springs, CA	Brocade
<u>May 14-15</u>	Interim	Mt. View	SGI
Jun 9-10	Plenary	Seattle, WA	Boeing
July 9-10	Interim	Minneapolis, MN	Cray
Aug 4-5	Plenary	Honolulu, HI	Hitachi
Oct 6-7	Plenary	Tucson, AZ	FSI
<u>Dec 8-9</u>	Plenary	Orlando, FL	DPT

The 1998 schedule is less firm, but here is what is currently being considered by X3T11 for the plenary meetings. Question marks note the ones that are still in question. Hopefully HIPPI-6400 will be far enough along that we will not need interim working meetings.

1998 -

Feb 9-10	Plenary	San Diego	Qlogic
Apr 20-21	Plenary	Palm Springs, CA	Brocade
Jun 8-9	Plenary	St. Petersburg Beach, FL	AMP
Aug 10-11	Plenary	??	??
Oct 5-6	Plenary	Tucson, AZ (?)	FSI (?)
Dec 7-8	Plenary	Ft. Lauderdale, FL	Adaptec

17. Review action items

1. Michael McGowen of Essential Communications - Generate a HIPPI switch MIB.
2. Jeff Young of Cray Research - Check on the status of the HIPPI end-point MIB, and if Mark Kelley is going to continue work on it.
3. Michael McGowen of Essential Communications - Update HIPPI-AC to work with HIPPI-SC and its recent changes.
4. Don Tolmie of Los Alamos - Revise HIPPI-FP with the inclusion of a ULP-id for HIPPI-MP.
5. Everyone - Suggest changes to HIPPI-FP and bring in proposals for them.
6. Everyone - Review the HIPPI-6400 MIB.
7. Don Tolmie of Los Alamos - Shepherd HIPPI-Serial Rev 2.7 through X3T11 and the final ANSI approval process.
8. Don Tolmie of Los Alamos - Shepherd HIPPI-SC Revised, Rev 3.2 through X3T11 and the final ANSI approval process.
9. Don Tolmie of Los Alamos - Shepherd HIPPI-ATM Rev 1.8 through X3T11 and the final ANSI approval process.
10. John Renwick of Ascend - Check the status of the updated RFC 1374, IP over HIPPI.
11. Roger Ronald of Raytheon E-Systems - Make his HIPPI-800 / HIPPI-6400 mapping available for review. It may be the basis, or obviate the need, for HIPPI-MP (Multiple Path).
12. Don Tolmie of Los Alamos - Present the Project Proposal for HIPPI-ST revision to X3T11 for further processing.

18. Continue work on HIPPI-6400

We were able to finish the main agenda at 9 AM, so continued on HIPPI-6400 items until noon. See the HIPPI-6400 minutes for details. A HIPPI-6400 meeting addressing fiber media followed from 1 PM - 5 PM.

Notes from X3T11 Plenary following the HNF-TC

The X3T11 Plenary met the next day, i.e., October 9. HIPPI related items are reported here for your convenience, the definitive record is the X3T11 minutes.

The Project Proposal for revising HIPPI-FP was approved by a vote of 50 For, 0 Opposed, and 24 not voting. It will be forwarded to OMC and X3 for further processing.

X3T11 accepted the Project Proposal for HIPPI-ST. It will be in the next X3T11 mailing, and voted on by X3T11 at their February meeting.

Attendance

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